

SAMPLE WELDING PROCEDURE SPECIFICATION (WPS)

for SAW, SMAW, GMAW, GTAW, FCAW

Company _____ Approved by _____
 (Signature Required)
 WPS No. _____ Date _____
 WPS Revision No. _____ Rev. Date _____
 Supporting PQR Nos. _____
 Welding Process(es) _____ Type(s) _____
 (Manual, Semiautomatic, Automatic, Robotic, Mechanized)

Joints (see 4.13.1)

Joint Type _____
 Backing _____
 Backing Material (Type) _____
 Groove Angle _____
 Root Opening Radius: U J
 Root Face _____
 Backgouging: Yes No
 Backgouging Method _____

Joint Details

Sketches, production drawings, welding symbols, or written description should show the general arrangement of the parts to be welded. Where applicable, the root details of the weld groove may be specified.

Base Metals (see 4.13.2)

M-No. _____ Group No. _____ or to M-No. _____ Group No. _____
 Specification Type and Grade _____ to Specification Type and Grade _____
 Thickness Range of Base Metal: Groove _____ Fillet _____
 Deposited Metal: Groove _____ Fillet _____
 Pipe Diameter Range: Groove _____ Fillet _____
 Other _____

Filler Metals (see 4.13.3)

Filler Metal F-No. _____ Other _____
 AWS Classification _____ AWS Specification _____
 Weld Metal Analysis A-No. _____ Other _____
 Filler Metal Size _____ Electrode Flux (Class) _____
 Weld Metal Thickness _____ Flux Trade Name _____
 Consumable Insert _____ Other _____

Positions (see 4.13.4)

Position(s) of Groove _____
 Position(s) of Fillet _____
 Weld Progression _____

Preheat (see 4.13.5)

Preheat Temperature (Min.) _____
 Preheat Maintenance _____
 Interpass Temperature (Max.) _____
 Continuous of Special Heating or Maintenance: _____

PWHT (see 4.13.6)

Temperature _____
 Time _____

Figure F.2—Example of a Welding Procedure Specification

Shielding (see 4.13.7)

	Torch Shielding	Root Shielding	Trailing	Environmental Shielding
Gas(es)				
Composition				
Flow Rate				

Electrical Characteristics (see 4.13.8)

Current Type/Polarity _____
 Pulsing: Yes No
 Current (Range) _____
 Voltage (Range) _____
 Wire Feed Speed (Range) _____
 Tungsten Electrode Size/Type _____
 Pulsing Parameters _____
 Transfer Mode _____
 Other _____

Other Variables (see 4.13.9)

Cup or Nozzle Size _____
 Collet Body or Glass Lens
 Cleaning Method _____
 Technique: Stringer or Weave Bead
 Cleaning Method _____
 Number of Electrodes _____
 Single or Multipass
 Contact Tip to Work Distance _____
 Other _____

Welding Parameters

Layers	Process	Filler Metal		Electrical			Travel Speed Range
		Class	Diameter	Type and Polarity	Current Range	Voltage Range	

We, the undersigned, certify that the statements in this record are correct and the test welds were prepared, welded, and tested in accordance with the requirements of AWS B2.1/B2.1M, (_____), *Specification for Welding Procedure and Performance Qualification*.
 (year)

Manufacturer or Contractor _____

Date _____ By _____
 (Please Print) (Signature Required)

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Figure F.2 (Continued)—Example of a Welding Procedure Specification